

# City of Rio Rancho

RFQ for Progressive Design Build Services for WWTP1

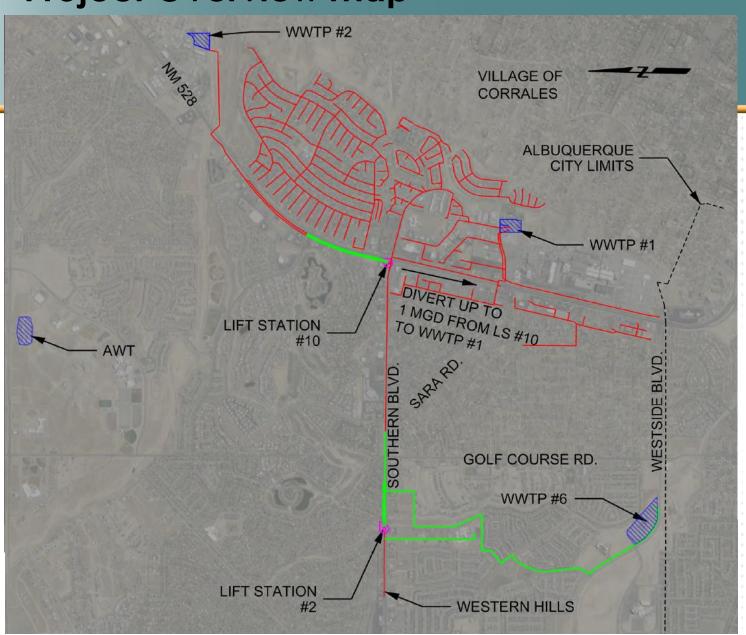


### City of Rio Rancho Objectives

- Quality: Provide treatment facilities and equipment that will be sustainable and will reliably produce effluent that meets the contractual standards
- Life-cycle Costs: Optimize life-cycle costs including operation requirements
- **Schedule**: Achieve the scheduled completion date within 18 months of Notice-to-Proceed (within 10 days of contract execution).
- Risk: Achieve an optimal balance of risk allocation between the City of Rio Rancho and the Design-Builder and manage risk to reduce the likelihood of change orders.
- Safety: Implement an effective safety program incorporating best industry practices.
- Selection of Qualified Design Builders: Selection of an experienced designbuild team that understands City objectives, has experience in the designbuild marketplace, and can design and construct the project at or under the prescribed budget.
- Innovate Solutions: Opportunities to provide innovative solutions for accelerated project scheduling, maximum cost control, improved constructability and minimization of operations and maintenance costs.



## **Project Overview Map**





#### Scope of Work

- Construct a new water resource recovery plant
  - Production of Class 1A effluent as defined by NMED Guidelines
  - The design influent flows and concentrations are as follows:

Note: Equipment is to be installed for Phase 1 flows and basins are to be constructed for Phase 2 flows.

Flow / Concentration Data	Phase I	Phase 2	
Annual Average Flow, mgd	0.75	1.5	
Maximum Month Flow, mgd	0.8	1.6	
Peak Day Flow, mgd	1	2	
Peak Hour Flow, mgd	1.1	2.2	
Minimum Influent Temperature, °C	18		
Average Influent Temperature, °C	22		
BOD <sub>5</sub> , mg/L	300*		
TSS, mg/L	300*		
Total Phosphorus, mg/L	8*		
Total Kjeldahl Nitrogen (TKN), mg/L	50*		

\*subject to change depending on additional sampling



### **WWTP1 Technical Requirements**

- Although MBR not specified, effluent must be equivalent to MBR effluent (membrane filtration required – UF max. 0.1 micron)
- For MBR, two-stage screening and grit removal ahead of second stage screen required (differs from WWTP 6)
- Bioreactor designed for total nitrogen removal to <10 mg/L maximum day – 10 day minimum aerobic SRT
- Disinfection shall provide for chlorine residual in effluent
- Permeate storage tank required for membranes with backwash capabilities
- No dewatering 2-day WAS storage
- Full odor control of headworks bioreactor and membrane tanks covered and ventilated to dispersion stack



### Scope of Work

- Recycled Water pipeline:
  - Effluent pipeline
  - Sara Road access point
  - Revise access entrance off Sara Road
- Drainage Improvements
  - Confirm the need for the storm water drainage improvements as being necessary to avoid flooding of the adjacent cemetery.



#### **Progressive Design Build Approach**

- All this work shall be performed in close collaboration and communication with the City.
- Phase One services generally consist:
  - Preliminary engineering, survey, geotechnical investigations
  - Preparation of construction documents and development of the Project GMP (or lump sum at the city discretion).
  - Design progressed to the 60% design before execution of the GMP or at the City's discretion the option to convert to a lump sum contract.
    - The City is willing to consider execution of the GMP or potential lump sum contract at an earlier design completion phase if the design has progressed sufficiently such that the City has good understanding of the outstanding design issues and confidence in the GMP
- Phase Two services generally encompass:
  - Completing the Project's final design, construction and performance testing, start up and commissioning. Permitting activities are included in each Phase for appropriate construction related permits.



#### **Important Dates**

- Deadline for questions
- Addendum issued
- Deadline to submit SOQ
- SOQ Evaluations/Short List
- Issue RFP to shortlisted Team

October 17, 2016 5:00 pm October 20, 2016 October 27, 2016 10:00 an

November 30, 2016

December 5, 2016



#### **Point of Contact**

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